

WHAT IS CLAIMED IS:

5 1. A delivery apparatus for a self-expanding stent, said apparatus comprising:

a) an outer sheath, comprising an elongated tubular member having distal and proximal ends;

10 b) an inner shaft located coaxially and slidably within said outer sheath, said shaft having a distal end and a proximal end, said shaft having a removable member on an exterior surface thereof adjacent to its proximal end, said removable member being sized such that it prevents said sheath from sliding along said shaft proximal to said member until it is removed therefrom.

15 2. The apparatus according to claim 1 said removable member is semi-cylindrical and snap fits over said inner member.

20 3. The apparatus according to claim 2 wherein said removable member has an outside diameter larger than an inside diameter of said outer shaft.

25 4. A delivery apparatus for a self-expanding stent, said apparatus comprising:

a) an outer sheath, comprising an elongated tubular member having distal and proximal ends;

30 b) an inner shaft located coaxially within said outer sheath, said shaft having a distal end and a proximal end, said shaft having a removable member on an exterior surface thereof adjacent to its proximal end, said removable member being sized such that it prevents said sheath from sliding along said shaft proximal to said member until it is removed therefrom, said distal end of said shaft further including at least two grooves disposed thereon; and

c) a substantially cylindrical self-expanding stent located within said sheath, said self-expanding member having a proximal end, a distal end, a longitudinal axis extending therebetween and an interior, said self-expanding stent further including at least two spaced apart longitudinal legs having distal and proximal ends, said distal ends of said legs attached to said proximal end of said member, said legs extending proximally away from said member, each said leg including a flange adjacent its proximal end, said flanges are set within said grooves of said inner shaft, thereby releasably attaching said stent to said inner shaft.

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5. The apparatus according to claim 4, wherein said stent is made from a superelastic Nickel-Titanium alloy.

15 6. The apparatus according to claim 4, wherein said flanges and said grooves are T-shaped.

20 7. The apparatus according to claim 4 wherein said flanges fit completely within said grooves so that said stent adds no additional outside diameter size to said inner shaft.

25 8. The apparatus according to claim 4 wherein said legs extend distally and axially from said member when said precursor stent is deployed within a body.

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9. The apparatus according to claim 4 wherein said flanges and said grooves are I-shaped.

10. The precursor stent according to claim 4 wherein said longitudinal legs are equally spaced about said proximal end of said expandable member.

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11. The precursor)stent according to claim 4 wherein said flanges on said longitudinal legs are substantially I-shaped.
12. The apparatus according to claim 4 said removable member is semi-cylindrical and snap fits over said inner member.
13. The apparatus according to claim 4 wherein said removable member has an outside diameter larger than an inside diameter of said outer shaft.